

REMARKS

The Office Action dated July 14, 2005 has been received and carefully noted. The following remarks are submitted as a full and complete response thereto. Claims 1-16 are currently pending in the application and are respectfully submitted for consideration.

In the Office Action, claims 1-3, 8-10, and 12-15 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sayers (U.S. Patent No. 6,539,237) in view of Vaara (U.S. Patent No. 6,400,951). The Office Action took the position that Sayers teaches all of the elements of claim 1, with the exception of: connecting the gatekeeper to the gateway by a switched packet path, transmitting the candidate list to the gatekeeper for handover, and a selection means for selecting one of the alternative cells in the candidate list. The Office Action then relies upon Vaara as allegedly curing these deficiencies in Sayers with respect to claim 1. Additionally, the Office Action alleges that Sayers discloses all of the elements of claim 8, with the exception of a target gateway for handover. The Office Action then relies upon Vaara as allegedly curing this deficiency in Sayers. The above rejection is respectfully traversed for the reasons which follow.

Claim 1, upon which claims 2-7 are dependent, recites a cellular communications network comprising a plurality of controllers for controlling cells in the cellular communications network. The controllers are arranged to receive RF information from at least one mobile station in the network. At least one gatekeeper may be connected to the controllers by a switched packet communication path. Each controller includes means for generating a handover required indication for a call in which the controller is engaged

and packet generating means for generating a packet addressed to the gatekeeper. Control information comprises a candidate list of alternative cells to which the call could be transferred. The gatekeeper includes selection means for selecting one of the alternative cells in the candidate list and packet generating means for generating a packet for sending a handover request for handing over the call to one of the alternative cells.

Claim 8, upon which claims 9-14 are dependent, recites a method of effecting handoff of a call in which at least one mobile station is engaged in a cellular communications network comprising a plurality of cells. The method includes the steps of receiving from the mobile station a handoff required indication indicating that handover is needed from a source controller to a target controller, and formulating at the source controller a packet addressed to a source gatekeeper, the packet including control information comprising a candidate list identifying possible alternative controllers. The method also includes the step of determining, at the source gatekeeper, to which one of the target controllers within the candidate list a handoff request should be forwarded and formulating a packet for forwarding to the target controller.

Claim 15 recites a controller for a cellular communications network. The controller includes means for generating a handover required indication for a call in which the controller is engaged, and packet generating means for generating a packet addressed to a gatekeeper. The packet generating means is configured to include, in the packet, a candidate list of alternative cells to which the call could possibly be transferred.

As will be discussed below, Sayers and Vaara, whether viewed singly or combined, fail to disclose or suggest all of the elements of the claims, and therefore fail to provide the features discussed above.

Sayers discloses a communication system formed by a private network that includes a private wireless network. The communication system includes a public wireless network using a public wireless protocol, such as GSM, and includes public networks, such as PSTN, ISDN and the Internet, using a wired protocol, such as IP. The private network also includes a local area network (LAN) and the private network connects to the public networks using a wired packet protocol, such as IP. The public and private wireless networks operate with the same public wireless protocol, such as GSM, and the private wireless network additionally operates with a wired packet protocol, such as IP. The communication system permits users to operate freely in both public and private wireless networks using standard mobile stations while achieving high private network data rates. The communication system uses normal wireless handsets or other mobile or fixed stations without need for any modifications.

Vaara discloses a method for handover and call setup in a mobile communication system. A mobile services switching center (MSC) transmits a priority cell list of the mobile station (MS) to the base station controller (BSC). The BSC monitors the need for a handover, and, when the handover must be performed, the BSC selects the cells which meet the set handover criteria. The BSC compares the identifiers of the selected cells to the identifiers of the priority cells in the priority cell list. If one of the selected cells is a

cell defined as a priority cell for the mobile station, then this priority cell is selected as the target cell for the handover. If, however, none of the possible target cells are defined as the priority cell for the mobile station, then the BSC selects one of the cells that meet the handover criteria as the target cell.

Applicants respectfully submit that Sayers and Vaara, whether viewed individually or combined, fail to disclose or suggest several elements of the present claims. For example, the combination of Sayers and Vaara does not disclose or suggest “a plurality of controllers for controlling cells in the cellular communications network,” as recited in claim 1. The Office Action alleges that the gateways of Sayers (Figs. 2 and 4) are analogous to the controller of the claimed invention. Applicants respectfully disagree. The gateways of Sayers do not control cells in a communications network. Rather, Sayers states that the gateways are “for connecting the ISDN 28, PBX 43,..., PSTN 26 which use different protocols than the private networks” (Sayers, Column 9, lines 43-45), and that the gateway “provides line interface and transcoding functions that allow the voice and data traffic to be sent to existing networks (for example, PSTN, ISDN, B-ISDN and PBX)” (Sayers, Column 11, lines 40-43). Sayers fails to disclose or suggest that the gateway is used to control cells. In fact, the networks to which the gateways are connected in Sayers (i.e. PSTN, ISDN, B-ISDN, and PBX) do not comprise cells since they are not mobile communication systems. Therefore, Sayers does not disclose or suggest “a plurality of controllers for controlling cells in the cellular communications network,” as the gateway of Sayers do not control cells. Vaara also fails to disclose or

suggest this element of claim 1. As such, the combination of Sayers and Vaara fails to disclose or suggest “a plurality of controllers for controlling cells in the cellular communications network.”

The Office Action also takes the position that Sayers discloses “the controllers being arranged to receive RF information from at least one mobile station in the network,” as recited in claim 1. Applicants respectfully submit that Sayers also fails to disclose or suggest this element of the claims. Sayers only discloses that the mobile station can communicate wirelessly to the base station and that this information can be sent to another network via the gateway (Sayers, Column 10, lines 19-24). Applicants respectfully submit that a person of ordinary skill in the art would understand that the term “RF information” refers to information regarding the status of RF signals, and further that it refers to information that is directly received at the controller. Therefore, merely receiving information that has been sent wirelessly from some other part of the network does not constitute receiving RF information at the controller. As such, Sayers fails to disclose or suggest this element of claim 1. Vaara also fails to disclose or suggest this limitation of claim 1. Thus, the combination of Sayers and Vaara does not disclose or suggest “the controllers being arranged to receive RF information from at least one mobile station in the network.”

Furthermore, the Office Action acknowledges that Sayers does not disclose or suggest “a packet addressed to said gatekeeper and including control information comprising a candidate list of alternative cells to which the call could possibly be

transferred,” as recited in claim 1. Claim 15 similarly recites “packet generating means being configured to include in the packet a candidate list of alternative cells to which the call could possibly be transferred.” The Office Action cites Vaara as allegedly disclosing these elements of the claims. However, Applicants respectfully submit that Vaara, like Sayers, does not disclose or suggest this element of the claims. Vaara discloses a “mobile station specific priority cell list (MPCL).” This list “contains the identifier for at least one cell that offers special service to the mobile station” (Vaara, Column 1, lines 13-15). Applicants respectfully submit that this priority cell list of Vaara does not correspond to “a candidate list of alternative cells to which the call could possibly be transferred.”

More specifically, Vaara states that “the base station controller BSC selects the cells which meet the set handover criteria based on the measurement results according to the prior art, or, in other words, which are suitable as the target cell for handover” (Vaara, Column 7, lines 30-34). Thus, according to Vaara, the candidate cells to which a handover could be made are not maintained in a candidate cell list, but rather are determined by methods known in the art. The mobile station specific priority list (MPCL) is only used to select one of the candidate cells as a priority over the others. For example, Vaara discloses that “if one of the selected cells is a cell defined as a priority cell for the mobile station, this priority cell is selected as the target cell for handover” (Vaara, Column 7, lines 37-39). Moreover, Applicants note that the mobile station specific priority list (MPCL) of Vaara does not need to change depending on the location

of the mobile station because the priority cells listed in the MPCL are static. A candidate cell list, on the other hand, needs to change for every cell in which the mobile station is located. Therefore, for at least the reasons discussed above, Vaara does not disclose this element of the claims. Sayers, as acknowledged in the Office Action, also fails to disclose this element of the claims. Accordingly, the combination of Sayers and Vaara fails to disclose or suggest “a packet addressed to said gatekeeper and including control information comprising a candidate list of alternative cells to which the call could possibly be transferred,” as recited in claim 1 and “packet generating means being configured to include in the packet a candidate list of alternative cells to which the call could possibly be transferred,” as recited in claim 15.

Similarly, claim 8 recites the step of “formulating at the source controller a packet addressed to a source gatekeeper, the packet including control information comprising a candidate list identifying possible alternative controllers.” As discussed above with respect to claim 1, both Vaara and Sayers fail to disclose or suggest a candidate list identifying alternative controllers. The MPCL disclosed in Vaara does not correspond to the candidate list of the present claims, as the MPCL of Vaara merely identifies priority cells. Therefore, Applicants respectfully submit that the combination of Sayers and Vaara fails to disclose or suggest “formulating at the source controller a packet addressed to a source gatekeeper, the packet including control information comprising a candidate list identifying possible alternative controllers,” as recited in claim 8.

For at least the reasons discussed above, Applicants respectfully submit that Sayers and Vaara, whether considered alone or in combination, fail to disclose or suggest all of the elements of claims 1, 8, and 15. Sayers and Vaara do not disclose or suggest a plurality of controllers for controlling cells in the cellular communications network. They also fail to disclose or suggest that the controllers are arranged to receive RF information from at least one mobile station in the network. Additionally, Sayers and Vaara fail to disclose or suggest a packet addressed to the gatekeeper and including control information comprising a candidate list of alternative cells to which the call could possibly be transferred. Similarly, they do not disclose or suggest formulating at the source controller a packet addressed to a source gatekeeper, the packet including control information comprising a candidate list identifying possible alternative controllers. Consequently, Applicants respectfully submit that the rejection of claims 1, 8, and 15 be withdrawn.

In addition, claims 2-7 and 9-14 are dependent upon claims 1 and 8, respectively. Consequently, claims 2-7 and 9-14 should also be allowed for at least their dependence upon claims 1 and 8, and for the specific limitations recited therein.

Claims 4, 6, 7, and 11 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sayers in view of Vaara, and further in view of Thomas (U.S. Patent No. 6,421,339). The Office Action took the position that Sayers and Vaara disclose all of the elements of the claims, with the exception of the data defining network specific resources being held at each gateway. The Office Action then relies upon Thomas as

allegedly curing this deficiency in Sayers and Vaara. The above rejection is respectfully traversed for the reasons which follow.

Sayers and Haga are discussed above. Thomas discloses a method and apparatus for completing multimedia calls over a packetized data transmission link to a roaming user located in a network foreign to the user's home network. Thomas further discloses a gatekeeper 44 and gateways 24, 32, 26 connected via buses 36 and 16, R/GW 28 and 34, and a packet data network 30. An H.323 compliant data packet network is configured such that if users roam they may register with a gatekeeper at a visited network.

Applicants respectfully submit that Thomas fails to cure the deficiencies in the primary references as discussed above. Furthermore, claims 4, 6, 7, and 11 are dependent upon claims 1 and 8, respectively. Therefore, claims 4, 6, 7, and 11 should be found allowable for at least their dependence upon claims 1 and 8, and for the specific limitations recited therein. Thus, Sayers, Haga and Thomas, taken in combination or alone, fail to render claims 4, 6, 7, and 11 obvious.

Sayers and Vaara are discussed above. Thomas discloses a method and apparatus for completing multimedia calls over a packetized data transmission link to a roaming user located in a network foreign to the user's home network. Thomas further discloses a gatekeeper 44 and gateways 24, 32, 26 connected via buses 36 and 16, R/GW 28 and 34, and a packet data network 30. An H.323 compliant data packet network is configured such that if users roam they may register with a gatekeeper at a visited network.

Applicants respectfully submit that Thomas fails to cure the deficiencies in Sayers and Vaara, as discussed above. Furthermore, claims 4, 6, 7, and 11 are dependent upon claims 1 and 8, respectively. Therefore, claims 4, 6, 7, and 11 should be found allowable for at least their dependence upon claims 1 and 8, and for the specific limitations recited therein. Thus, Sayers, Vaara and Thomas, taken in combination or alone, fail to render claims 4, 6, 7, and 11 obvious.

Claim 5 was rejected under 35 U.S.C. §103(a) as being unpatentable over Sayers in view of Vaara and Thomas, and further in view of Hannula (U.S. Patent No. 6,366,893). The rejection is respectfully traversed for the reasons which follow.

Sayers, Vaara and Thomas are discussed above. Hannula discloses a method and apparatus for performing electronic payment transactions between terminal equipment (100) in a telecommunication network and the other transacting party. Hannula utilizes a payment service gateway (10) through which all the payment transactions of the terminal equipments in the telecommunication network are routed. The payment service gateway allows the parties of the payment transaction to support different electronic payment protocols and performs the required protocol conversions so as to provide an end-to-end transaction.

Applicants note that claim 5 is dependent upon claim 1. In addition, Hannula fails to cure the deficiencies in Sayers, Vaara and Thomas as discussed above. Thus, claim 5 should be allowed for at least its dependence upon claim 1, and for the specific

limitations recited therein. Furthermore, Sayers, Haga, Thomas and Hannula, whether taken alone or in combination fail to render claim 5 obvious.

Claim 16 was rejected under 35 U.S.C. §102(e) as being anticipated by Vaara (U.S. Patent No. 6,400,951). The rejection of claim 16 is respectfully traversed for the reasons which follow.

Claim 16 recites a gatekeeper for a cellular communications network. The gatekeeper includes means for receiving a packet comprising a candidate list of alternative cells to which a call could possibly be transferred, and means for generating a packet for sending a handover request for handling over a call to one of the alternative cells indicated in a received packet comprising a candidate list of alternative cells to which the call could possibly be transferred.

Applicants respectfully submit that Vaara fails to disclose or suggest all of the elements of claim 16, as will be discussed below.

Vaara discloses a method for handover and call setup in a mobile communication system. A mobile services switching center (MSC) transmits a priority cell list of the mobile station (MS) to the base station controller (BSC). The BSC monitors the need for a handover, and, when the handover must be performed, the BSC selects the cells which meet the set handover criteria. The BSC compares the identifiers of the selected cells to the identifiers of the priority cells in the priority cell list. If one of the selected cells is a cell defined as a priority cell for the mobile station, then this priority cell is selected as the target cell for the handover. If, however, none of the possible target cells are defined

as the priority cell for the mobile station, then the BSC selects one of the cells that meet the handover criteria as the target cell.

Applicants respectfully submit that Vaara fails to disclose or suggest “means for receiving a packet comprising a candidate list of alternative cells to which a call could possibly be transferred,” as recited in claim 16. As discussed above, the mobile station specific priority list (MPCL) of Vaara does not correspond to the candidate list of the claimed invention. The MPCL of Vaara is merely used to select one of the candidate cells as a priority over other cells. Vaara does not disclose or suggest a candidate list of alternative cells to which a call could possibly be transferred. Therefore, Vaara does not disclose or suggest all of the elements of claim 16. As such, Applicants respectfully request that the rejection of claim 16 be withdrawn.

Applicants respectfully submit that the cited prior art fails to disclose or suggest several elements of the claimed invention. These distinctions are more than sufficient to render the claimed invention unanticipated and unobvious. It is therefore respectfully requested that all of claims 1-16 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



Majid S. AlBassam
Registration No. 54,749

Customer No. 32294
SQUIRE, SANDERS & DEMPSEY LLP
14TH Floor
8000 Towers Crescent Drive
Tysons Corner, Virginia 22182-2700
Telephone: 703-720-7800
Fax: 703-720-7802

MSA:jf

Enclosures: Petition for Extension of Time